Exhibit 300: Capital Asset Summary

Part I: Summary Information And Justification (All Capital Assets)

Section A: Overview & Summary Information

Date Investment First Submitted: 2009-06-30
Date of Last Change to Activities: 2012-08-16
Investment Auto Submission Date: 2012-02-28
Date of Last Investment Detail Update: 2012-06-29
Date of Last Exhibit 300A Update: 2012-06-29
Date of Last Revision: 2012-08-16

Agency: 006 - Department of Commerce **Bureau:** 48 - National Oceanic and Atmospheric Administration

Investment Part Code: 01

Investment Category: 00 - Agency Investments

1. Name of this Investment: NOAA/NESDIS/ Comprehensive Large Array-data Stewardship System (CLASS)

2. Unique Investment Identifier (UII): 006-000320500

Section B: Investment Detail

1. **Provide a brief summary of the investment, including a brief description of the related benefit to the mission delivery and management support areas, and the primary beneficiary(ies) of the investment. Include an explanation of any dependencies between this investment and other investments.**

CLASS supports the effort to understand climate variability and change to enhance society's ability to plan and respond through the application of modern, proven techniques and technology. By engineering a transition to an enterprise-capable data storage solution, CLASS will afford efficient management of high volumes of data critical to the United States Global Change Research Program and the scientific community. Management of these data requires a rapid expansion in storage capacity at the Data Centers and automation of data ingest, archive, quality control, and access. Significant increases in data volumes over the next 15 years and corresponding growth in the number and sophistication of system users necessitate this shift from the traditional archive paradigm to a fully operational and integrated system managed at the enterprise level. For example, data from the NPP program will utilize CLASS in lieu of building a dedicated data archival system. Large portions of the Nation's current archive of environmental data is stored and maintained by the NOAA National Data Centers. These data exist in disparate systems, with non-standard archive and access capabilities. CLASS will provide a standard, integrated solution to data archive and access, resulting in numerous benefits: an easy-to-use access Portal for the Nation to obtain environmental data; integration of data for the user (Search, Browse, Geospatial capabilities); higher quality and volume of environmental data which contributes to improvements in

prediction capabilities; and decreased cost of redundant resources. The CLASS program has identified technologies and best practices to efficiently archive the NOAA satellite and observational data; to safely and permanently preserve those valuable data for future generations to use; and to provide rapid data access in a cost-effective manner. CLASS archiving priorities are set by the CLASS Operations and Planning Board as authorized by the NOAA Observing Systems Council. The competitive CLASS development contract was awarded June 30, 2008. An Integrated Baseline Review (IBR) was completed in April 2009 with rolling wave IBRs conducted annually.

2. **How does this investment close in part or in whole any identified performance gap in support of the mission delivery and management support areas? Include an assessment of the program impact if this investment isn't fully funded.**

CLASS will close the CL-COA Data Stewardship capability gap of the "inability to integrate data from various observing systems and provide climate-related data...to the user" By closing this gap the Nation will be better prepared to mitigate the effects of climate and weather extremes. Not funding this effort will impact NOAA's ability to meet the Strategic Goal to Understand Climate Variability and Change to Enhance Society's Ability to Plan and Respond and DOC Goal 3 Promote Environmental Stewardship .

3. **Provide a list of this investment's accomplishments in the prior year (PY), including projects or useful components/project segments completed, new functionality added, or operational efficiency achieved.**

The Government s goal for CLASS is to be an open system architecture whose design will easily accommodate interoperability with existing and new systems as they come on line. CLASS conducted activities necessary to continue campaign specific development activities as well as completion of a phased 5 year system evolution process that included the development of a CLASS System Evolution Management Plan, a CLASS Software Evolution Plan, a CLASS Hardware Evolution Plan, a CLASS Target System Architecture Overview. CLASS also completed the definition, design, implementation, testing, and deployment activities for an enterprise interface supporting the archive functions of access, ingest, and data management using the concepts demonstrated by the Simple NOAA Archive Access Portal (SNAAP). In addition CLASS completed the analysis, planning, and implementation of system capacity and performance analysis capabilities including system load testing activities.

4. **Provide a list of planned accomplishments for current year (CY) and budget year (BY).**

System development and evolution, including the following: Definition, design, implementation, testing, and deployment activities for the NEAAT, an enterprise interface supporting the archive functions of access, and data management that will support NOAA Data Centers requirements for system-to-system access to CLASS and other NOAA archive systems. Analysis, planning, and implementation of system capacity and performance analysis capabilities including system load testing activities in preparation for supporting upcoming data campaigns such as NPP, NEXRAD, Climate Model Data, GOES-R, and other data center campaigns. This activity also included internal and external network architecture assessment for support of CLASS data transfer activities. Coordination with the NGDC and the NODC to identify initial sets of data that will be submitted to CLASS for archival storage.

Initiation of coordination with the NCDC for a future migration of their archival storage holdings stored under the management of NCDC s HPSS to CLASS. CLASS system release 5.4 and 5.5 development and implementation, including system management, system engineering, system implementation and test, system security, and new campaigns support. Review of the CLASS system security architecture to incorporate necessary changes for the acquisition, deployment, and operations of various tools. Update of CLASS system requirements to include detailed security requirements to better meet and document how NOAA s updated security guidelines and policies and NIST guidance are implemented into the system.

5. **Provide the date of the Charter establishing the required Integrated Program Team (IPT) for this investment. An IPT must always include, but is not limited to: a qualified fully-dedicated IT program manager, a contract specialist, an information technology specialist, a security specialist and a business process owner before OMB will approve this program investment budget. IT Program Manager, Business Process Owner and Contract Specialist must be Government Employees.**

2001-03-10

Section C: Summary of Funding (Budget Authority for Capital Assets)

1.

Table I.C.1 Summary of Funding

	PY-1 & Prior	PY 2011	CY 2012	BY 2013
Planning Costs:	$29.1	$5.2	$6.0	$8.0
DME (Excluding Planning) Costs:	$44.9	$17.4	$11.3	$14.0
DME (Including Planning) Govt. FTEs:	$0.0	$0.0	$0.6	$0.6
Sub-Total DME (Including Govt. FTE):	$74.0	$22.6	$17.9	$22.6
O & M Costs:	$29.3	$2.3	$3.1	$5.4
O & M Govt. FTEs:	$0.0	$0.0	$0.0	$0.0
Sub-Total O & M Costs (Including Govt. FTE):	$29.3	$2.3	$3.1	$5.4
Total Cost (Including Govt. FTE):	$103.3	$24.9	$21.0	$28.0
Total Govt. FTE costs:	0	0	$0.6	$0.6
# of FTE rep by costs:	2	1	4	4
Total change from prior year final President's Budget ($)		$0.0	$0.3	
Total change from prior year final President's Budget (%)		0.00%	1.40%	

2. If the funding levels have changed from the FY 2012 President's Budget request for PY or CY, briefly explain those changes:

Section D: Acquisition/Contract Strategy (All Capital Assets)

Table I.D.1 Contracts and Acquisition Strategy

Contract Type	EVM Required	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	IDV Agency ID	Solicitation ID	Ultimate Contract Value ($M)	Type	PBSA ?	Effective Date	Actual or Expected End Date
Awarded		EA133E08CQ0020									

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:

Exhibit 300B: Performance Measurement Report

Section A: General Information

Date of Last Change to Activities: 2012-08-16

Section B: Project Execution Data

Table II.B.1 Projects

Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost ($M)
3205D12001	CLASS Data Center Migration	This project supports the definition, analysis, design, test and implement plans for migrating all Data Center digital holdings into CLASS by 2015, as currently mandated by NESDIS management. These holdings include original data, data products, and associated metadata.			
3205D12002	CLASS JPSS	This project supports continuation of load testing activities and pre- and post-launch testing and problem resolution for NPP as well as NDE, Gcom-W and Star. This effort also will begin the advanced planning of the next generation of environmental satellites.			
3205D12003	CLASS GOES-R	This project continues the program development activities associated with developing, testing and deploying the archival systems to support the GOES-R ground segment.			

Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Project ID	Name	Total Cost of Project Activities ($M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance ($M)	Cost Variance (%)	Total Planned Cost ($M)	Count of Activities
3205D12001	CLASS Data Center Migration							
3205D12002	CLASS JPSS							
3205D12003	CLASS GOES-R							

Key Deliverables

Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
3205D12002	Requirements Development	Requirements Development products - Requirements Document, Interface Control Document, Design Documentation	2011-11-01	2011-11-01	2011-11-01	31	0	0.00%
3205D12003	Requirements Development	Requirements Development products - Requirements Document, Interface Control Document, Design Documentation	2011-11-01	2011-11-01	2011-11-15	31	-14	-45.16%
3205D12003	Requirements Development	Requirements Development products - Requirements Document, Interface Control Document, Design Documentation	2011-12-01	2011-12-01	2011-12-10	61	-9	-14.75%
3205D12002	Baseline Configuration Management	Baseline Configuration Management	2012-01-01	2012-01-01	2012-01-01	61	0	0.00%

Key Deliverables								
Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
		products- Change Requests, Configuration audit results						
3205D12002	SW Development	HW/ SW Development products- design presentations, network diagrams, software code, procurement documents	2012-01-01	2012-01-01	2011-12-15	61	17	27.87%
3205D12003	Baseline Configuration Management	Baseline Configuration Management products- Change Requests, Configuration audit results	2012-01-01	2012-04-01	2012-04-01	61	-91	-149.18%
3205D12001	Requirements Development	Requirements Development products - Requirements Document, Interface Control Document, Design Documentation	2012-02-01	2012-02-01	2012-01-24	123	8	6.50%
3205D12003	Requirements Development	Requirements Development products - Requirements Document, Interface Control Document, Design Documentation	2012-02-01	2012-02-01	2012-02-01	123	0	0.00%
3205D12003	Requirements Development	Requirements Development products - Requirements Document, Interface Control Document, Design	2012-02-01	2012-02-01	2012-02-01	123	0	0.00%

Key Deliverables								
Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
		Documentation						
3205D12001	Requirements Development	Requirements Development products - Requirements Document, Interface Control Document, Design Documentation	2012-02-01	2011-11-30	2011-11-30	123	63	51.22%
3205D12003	Requirements Development	Requirements Development products - Requirements Document, Interface Control Document, Design Documentation	2012-02-01	2011-11-30	2011-11-30	123	63	51.22%
3205D12002	Reqirements V&V	Reqirements V&V products- V&V Matrixes, Requirement traceability reports	2012-02-01	2011-12-15	2011-12-15	31	48	154.84%
3205D12001	Requirements Development	Requirements Development products - Requirements Document, Interface Control Document, Design Documentation	2012-02-01	2012-02-01	2012-01-24	123	8	6.50%
3205D12002	Requirements Development	Requirements Development products - Requirements Document, Interface Control Document, Design Documentation	2012-02-01	2011-11-30	2011-11-30	123	63	51.22%
3205D12003	Reqirements V&V	Reqirements V&V products- V&V Matrixes,	2012-02-01	2012-02-01	2012-01-25	31	7	22.58%

Key Deliverables								
Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
		Requirement traceability reports						
3205D12002	Requirements Development	Requirements Development products - Requirements Document, Interface Control Document, Design Documentation	2012-04-01	2012-04-01	2012-04-01	183	0	0.00%
3205D12002	Requirements Development	Requirements Development products - Requirements Document, Interface Control Document, Design Documentation	2012-04-01	2012-04-01	2012-04-01	183	0	0.00%
3205D12003	Baseline Configuration Management	Baseline Configuration Management products- Change Requests, Configuration audit results	2012-05-01	2012-05-01		152	-122	-80.26%
3205D12003	HW/SW Development	HW/ SW Development products- design presentations, network diagrams, software code, procurement documents	2012-05-01	2012-05-01		152	-122	-80.26%
3205D12003	HW/SW Development	HW/ SW Development products- design presentations, network diagrams, software code, procurement documents	2012-06-01	2012-08-01		152	-91	-59.87%

Key Deliverables

Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
3205D12002	HW/ SW Development	HW/ SW Development products- design presentations, network diagrams, software code, procurement documents	2012-06-01	2012-06-01		121	-91	-75.21%
3205D12003	Baseline Configuration Management	Baseline Configuration Management products- Change Requests, Configuration audit results	2012-06-01	2012-06-01		121	-91	-75.21%
3205D12002	SW Development	HW/ SW Development products- design presentations, network diagrams, software code, procurement documents	2012-06-01	2012-04-26	2012-04-26	92	36	39.13%
3205D12002	SW Development	HW/ SW Development products- design presentations, network diagrams, software code, procurement documents	2012-08-01	2012-08-01		182	-30	-16.48%
3205D12001	Baseline Configuration Management	Baseline Configuration Management products- Change Requests, Configuration audit results	2012-08-01	2012-08-01	2012-08-01	182	0	0.00%
3205D12003	Baseline Configuration Management	Baseline Configuration Management products- Change	2012-08-01	2012-08-01		182	-30	-16.48%

Key Deliverables								
Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
		Requests, Configuration audit results						
3205D12003	HW/SW Development	HW/ SW Development products- design presentations, network diagrams, software code, procurement documents	2012-08-01	2012-08-01		182	-30	-16.48%
3205D12001	Baseline Configuration Management	Baseline Configuration Management products- Change Requests, Configuration audit results	2012-08-01	2012-08-01		182	-30	-16.48%
3205D12003	Reqirements V&V	Requirements V&V products- V&V Matrixes, Requirement traceability reports	2012-08-01	2012-08-01		92	-30	-32.61%
3205D12001	HW/ SW Development	HW/ SW Development products- design presentations, network diagrams, software code, procurement documents	2012-08-01	2012-08-01	2012-08-01	182	0	0.00%
3205D12003	Baseline Configuration Management	Baseline Configuration Management products- Change Requests, Configuration audit results	2012-08-01	2012-08-01		182	-30	-16.48%
3205D12001	HW/ SW Development	HW/ SW Development products- design	2012-08-01	2012-08-01	2012-08-01	182	0	0.00%

Key Deliverables								
Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
		presentations, network diagrams, software code, procurement documents						
3205D12003	HW/SW Development	HW/ SW Development products- design presentations, network diagrams, software code, procurement documents	2012-08-01	2012-08-01		182	-30	-16.48%
3205D12001	Baseline Configuration Management	Baseline Configuration Management products- Change Requests, Configuration audit results	2012-08-01	2012-08-01	2012-08-01	182	0	0.00%
3205D12002	Baseline Configuration Management	Baseline Configuration Management products- Change Requests, Configuration audit results	2012-08-01	2012-08-01		182	-30	-16.48%
3205D12001	Reqirements V&V	Reqirements V&V products- V&V Matrixes, Requirement traceability reports	2012-09-01	2012-09-01		31	0	0.00%
3205D12002	Baseline Configuration Management	Baseline Configuration Management products- Change Requests, Configuration audit results	2012-09-30	2012-09-30		365	0	0.00%
3205D12001	Reqirements V&V	Reqirements V&V products- V&V	2012-09-30	2012-09-30		60	0	0.00%

Key Deliverables								
Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
		Matrixes, Requirement traceability reports						
3205D12002	Baseline Configuration Management	Baseline Configuration Management products- Change Requests, Configuration audit results	2012-09-30	2012-09-30		182	0	0.00%

Section C: Operational Data

Table II.C.1 Performance Metrics

Metric Description	Unit of Measure	FEA Performance Measurement Category Mapping	Measurement Condition	Baseline	Target for PY	Actual for PY	Target for CY	Reporting Frequency
Delivery of environmental data files to customers	Number of files delivered (in Millions)	Customer Results - Service Quality	Over target	0.646000	0.711000	3.579000	0.782500	Monthly
Availability of new environmental data in the CLASS archive	New data files in the archive catalog(in Millions)	Mission and Business Results - Services for Citizens	Over target	1.390000	1.600000	1.780000	1.780000	Monthly
Operational effectiveness	Operational Availability (Percentage of up-time)	Process and Activities - Quality	Over target	95.000000	97.000000	99.000000	98.000000	Monthly
Communication Network Infrastructure	Communication network bandwidth (Mb/sec)	Technology - Effectiveness	Over target	30.000000	120.000000	143.000000	300.000000	Monthly
Response time to technical issues	Response time (Percentage within 4 hours)	Technology - Effectiveness	Over target	90.000000	90.000000	100.000000	95.000000	Monthly
Operational effectiveness	Operational Availability (Percentage of up-time)	Process and Activities - Quality	Over target	95.000000	97.000000	99.000000	98.000000	Monthly